SAF-RC-001 Industrial Hygiene Sampling FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG (06I-0081-01)

SAF-RC-001

Rad only

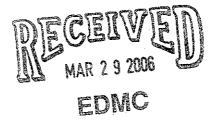
X Chem only

Rad & Chem

X Complete

Partial

300 Area 3720 Bldg







Cover Page

Report Identification Number:

06I-0081-01

Subcontract Number:

0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist:

Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number:

DCHM

SAF#: RC-001 / R37200 1000

Payroll#: 8C292



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Samule Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
05 Jan 2006	J10R48	06I00592	NMAM 7300M	G060900M	MCE
05 Jan 2006	J10R47	06I00593	NMAM 7300M	G060900M	MCE
05 Jan 2006	J10R50	06I00594	NMAM 7300M	G060900M	MCE
05 Jan 2006	J10R45	06100595	NMAM 7300M	G060900M	MCE
05 Jan 2006	J10R46	06100596	NMAM 7300M	G060900M	MCE

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Phone: (801) 266-7700

FAX: (801) 268-9992

Name: Joanna C. Sanchez

Title: Chemist

Date: January 13, 2006





Case Narrative Page

Report Identification Number: 06I-0081-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF#: RC-001 / R37200 1000

Payroll#: 8C292

There are 5 samples in set 06I-0081-01, 3 samples in set 06I-0082-01 and 5 General Set Information: samples in set 06I-0083-01 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.06 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.5 ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

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Dilution(s): NA.



Case Narrative Page

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCSD was within the control limit of 20%.

Replicate Analysis: Two samples were replicated with this analysis run. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (μ g/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu g/L$)

B = Concentration factor from sample preparation

= <u>Final Volume of Digestate (L)</u>

Sample

C = Dilution performed at time of analysis

Example Calculation: (1 μ g/L) x (0.025 L/sample) x (1) = 0.025 μ g/sample

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Miscellaneous Comments: None.



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Report Page

Report Identification Number:

06I-0081-01

Subcontract Number: 0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF#: RC-001 / R37200 1000

Payroll#: 8C292

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Berylliun µg/sampl		Berylliun µg/m³	1	Air Volume L
J10R48	06I00592	11 Jan 2006	<0.01	U	< 0.0075	U	1330.
J10R47	06I00593	11 Jan 2006	< 0.01	U	< 0.0065	U	1540.
J10R50	06I00594	11 Jan 2006	< 0.01	U	< 0.0074	U	1354.
J10R45	06100595	11 Jan 2006	< 0.01	U	**		**
J10R46	06I00596	11 Jan 2006	< 0.01	U	**		**
	0.	.01					
R	equired Detect	ion Limit (RDL)					

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead µg/sampl	e	Lead μg/m³	¢	Cadmiun µg/sampl	
J10R48	06100592	11 Jan 2006	<0.5	U	< 0.38	U	< 0.06	U
J10R47	06I00593	11 Jan 2006	<0.5	Ü	<0.32	U	< 0.06	Ū
J10R50	06100594	11 Jan 2006	<0.5	U	< 0.37	U	< 0.06	U
J10R45	06100595	11 Jan 2006	<0.5	U	**		< 0.06	Ū
J10R46	06100596	11 Jan 2006	<0.5	U	**		< 0.06	U
	Limit of I	Detection (LOD)		0.5			0	.06
R	equired Detect	ion Limit (RDL)					-	

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Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmiun μg/m³	a
J10R48	06I00592	11 Jan 2006	< 0.045	U
J10R47	06100593	11 Jan 2006	< 0.039	U
J10R50	06100594	11 Jan 2006	< 0.044	U
J10R45	06I00595	11 Jan 2006	**	
J10R46	06100596	11 Jan 2006	**	
· ·	Limit of I	Detection (LOD)		
R	equired Detect	ion Limit (RDL)		





Report Page

U - Parameter not detected above LOD. J - Parameter between LOD and RDL.

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QC Summary Page

Report Identification Number:

06I-0081-01

Subcontract Number:

0000X-BO-G0058-B-Mod#4

Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby

Laboratory Identification Number: DCHM

SAF: RC-001 / R37200 1000

Payroll#: 8C292

Batch ID: G060900M

							D	Relative
QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Percent Diff.
BL-239888-1	MB	Beryllium	μg/sample	ND	NA	NA	NA	NA
BL-239888-1	MB	Lead	ug/sample	ND	NA	NA	NA	NA
BL-239888-1	MB	Cadmium	μg/sample	ND	NA	NA	NA	NA
QC-239888-1	LCS	Beryllium	μg/sample	9.97	NA	10.0	99.7	NA
QC-239888-1	LCS	Lead	μg/sample	99.0	NA	100.	99.0	NA
QC-239888-1	LCS	Cadmium	μg/sample	29.9	NA	30.0	99.6	NA
QD-239888-1	LCSD	Beryllium	μg/sample	10.4	9.97	10.0	104.	3.82
QD-239888-1	LCSD	Lead	μg/sample	104.	99.0	100.	104.	4.60
QD-239888-1	LCSD	Cadmium	μg/sample	31.1	29.9	30.0	104.	4.13

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0

MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) * 100.

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MS, MSD Relative Percent Diff. = ((|MS - MSD|)/((MS + MSD)/2.0)) * 100.

LD Relative Percent Diff. = ((|Parent - LD|) / ((Parent + LD)/2.0)) * 100



Washington Closure Nantora									0	W.	1840	10		
				OF CUSTODY/S	AMPLE	ANALY	SIS RE	QUEST						_
CLIFFOR	O BATES		itts and Henry W. R		Telephone 531-12			Project Coordin Joan H. Kessner	สเดา		Data Turn	=		
Paysoll#:		Sampling L	ocation REA	SPECIAL INST All relevant CO	As must be or	ovided:		SAF No. RC-001			300	<i>iy</i>	· ·	
SC 2972 300AREA Type of Sample: Be, Pb, Cd 3720 Blog, AREA AIR SAMPLES				ANALYSIS N	ANALYSIS METHOD (SPECIFIC):				Method of Shipment Fed EX Bill of Lading/Air Bill No. 8541 9337 5373					_
Shipped To: Wipe Sample Media: Ghost Yes No NA SALT LAKE CITY LIT POSSIBLE SAMPLE HAZARD/REMARKS MATTEX														
POSSIBLE SAMPLE P Be, Pb, Co Special Hundling and	d Vor Storage	MAT A AII WI WI X - OT	R Pro PE	servation (i.e., cooling required, etc.)	No	No	No	No	No	No	No	No		
SAMPLE NO.	MATRIX	SAMPLE ANALY SAMPLE DATE	VOLUME (L) of	Comments	Ashestos Airbome	Lead Airborne	Beryllius Alrbomi		Mold	Lead Wipe	Cd Wipe	Cd Airborne		_
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J10R47	A	1-5-06	1540	NA.		Х	Х				93	X	~ k	Þ
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WCH-SH-202 (08/29/	/2005)		<u> </u>	<u> </u>	I			<u></u>	<u> </u>	Page	ur 2		!J	_

COC Page



COC Page

CHAIN OF CUSTOBY/S/	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	
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WCH-SH-202 (0W29/2005)	2 rad	7)

DataChem Laboratories, Inc. 960 West Levoy Drive Salt Lake City, Utah 84123-2547

Enter on line below the first Sample Number from Page One:

J10848

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Web Page: www.datachem.com E-mail: lab@datachem.com



			CHAIN	OF CUSTODY/S	DDY/SAMPLE ANALYSIS REQUEST								
Collector: CLIFFOR	O BATES	Company Denise A.	Contact Pitts and Henry W. 1	Ruby	Telephone 531-12			Project Coordin Joan H. Kessner	ner .				
Payroll #: 8	2	Sampling 300	FREA	SPECIAL INS All relevant CO	TRUCTIONS OAs must be pi	ovided:	!	SAF No. RC-001 3day					
Type of Sample: AREA AIRSI	Be, Pb, Cd		ANALYSIS			PECIFIC):		Method of Shipment Fed EX					
	Shipped To: NATACHEM SALT LAKE CITY UT POSSIBLE SAMPLE HAZARD/REMARKS Wipe Sample Media: Ghost Yes No NA Other			NA Be, F	METHO b, Cd	D 730	Ö	Bill of Lading/A		933	7 5	373)
POSSIBLE SAMPLE P Be, Pb, C. Special Handling and	d	MA' A - A WI - W		eservation (i.e., cooling required, etc.)	No	No	No	No	No	No	No	No	
Special Handling and		Х - О									,	1.0	$ \setminus $
SAMPLE ANALYSIS				Asbestos	Lead	Berylliu	m Beryllium		Lead	Cd	Cd		
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) of	Comments	Airborne	Airborne	Airbom		Mold	Wipe	Wipe	Airborne	
JIOR48	A	1-5-06	1330	NA	Λ	X	×					X	
J10R47	A	1-5-06	1540	NA	1	X	X		_c			X	- 60
JIORSO	A	1-5-06	1354	NA	1/2	X	X		7.50			X	90
JIOR45	A	1-5-06	NA	BLANK	06	×	X					X	
J10R46	A	1-5-06	NA	BLANK		人	×					X	
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